24775

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NEW SITE IDENTIFICATION

Part A – To Be Completed By Observer	
1. Person Initiating Report: David Gibby	Phone: 208-533-4215
Contractor WAG Manager: Steve Wilkinson	Phone: 208-526-4150
2. Site Title: TRA-63 (TRA-605 Warm Waste Line)	
3. Describe the conditions that indicate a possible inactive or unreported waste site. Include location and description of suspicious condition, amount or extent of condition and date observed. A location map and/or diagram identifying the site against controlled survey points or global positioning system descriptors shall be included to help with the site visit. Include any known common names or location descriptors for the waste site. On October 9, 2001, during excavation for replacement of an underground line that carried warm waste, a break in a 4-inch pipe was discovered. The 4-inch pipe is a tributary that feeds into a 30" Warm Waste Pipe that connects TRA-605 (Warm Waste Treatment Facility) to TRA-716 (Warm Waste Pumping Station). A review of records indicates that the break occurred after September 1997. There was no indication of a leaking pipe until excavation around the pipe occurred. The leaking pipe was repaired and warm waste was discharged through an alternate path to the Test Reactor Area Evaporation Pond. The soil in proximity to the pipe is radioactively contaminated. Approximately 50 Ci of tritium may have been released to the soil over time as a consequence of this leak.	

Part B – To Be Completed By Contractor WAG Manager
4. Recommendation: ☒ This site meets the requirements for an inactive waste site, requires investigation, and should be included in the INEEL FFA/CO Action Plan. Proposed Operable Unit assignment is recommended to be included in the FFA/CO. WAG: 10 Operable Unit: 10-08 ☐ This site DOES NOT meet the requirements for an inactive waste site, DOES NOT require investigation and SHOULD NOT be included in the INEEL FFA/CO Action Plan.

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5. Basis for the recommendation:

1. Source Description: The source of the wastes associated with this potential site has been identified as the underground 4-inch treated radioactive waste discharge line (WDC-605) from the Warm Waste Treatment Facility (WWTF) located in the Process Water Building (TRA-605). The radioactive waste water in the pipe is pre-treated water (i.e. most of the radioactive constituents are removed by mixed cation/anion resin beds in either the TRA-605 or ATR-670 WWTF). This system receives only radioactively contaminated effluent and does not process any hazardous waste.

The 4-inch line was excavated in 1997 to assess its integrity. At that time corrosion was noted, however, the line was deemed sound for continued use. On October 9, 2001, while excavating soil for a TRA Warm Waste Piping (30-inch) Replacement Project, wet soil was encountered by a construction crew in the vicinity of the 4-inch line. The soil was determined to be radioactively contaminated. Under carefully controlled conditions, excavation was continued to approximately six feet below grade, at which point the 4-inch pipe was uncovered. Water was seen to be seeping from the pipe. Additional investigation revealed that the pipe was broken due to an offset shear of approximately 1/2-inch. The edges of the sheared pipe were corroded, indicating that the break likely had existed for some time. A survey of the soil was performed using a hand-held frisker. The frisker survey confirmed the presence of 300,000 disintegrations per minute (dpm) of contamination in the excavated soil.

Gamma ray spectral analysis was conducted on a sample of water from the excavation site. The analytical results showed that low-level radionuclides were present in the water, consistent with those present in treated ATR and/or TRA-605 warm waste water.

Tritium data was obtained for wastewater discharges from October 1997 through September 2001. Three hundred and fifty-one (351) Ci of tritium were discharged through the line over that time period. A calculation estimated approximately 50 Ci of tritium could have been released from the pipe to the soil since 1997. Complete source contaminant(s) identification and concentrations are not known at this time.

2. Exposure Pathway: Potential exposure pathways associated with the drain line could include inhalation, ingestion and absorption through direct contact with either the wastewater or the soils dampened by the leaked wastewater.

3. Potential Contaminants of Concern: At this time a complete list of potential contaminants of concern is not known. Calculations based on waste water discharges through the affected pipe and monthly sampling results since 1997 indicated approximately 50 Ci of tritium could have been released to the soils, approximately 4' to 6' below ground surface. As a complete evaluation of the drain line and its surrounding soils has not been performed, it is impossible to state that the tritium is the only contaminant of concern at this potential site. Since the vertical and lateral extent of the release is unknown, further investigation into potential adverse effects upon human health and the environment is warranted.

4. Description of interfaces with other Programs: Interfaces with other programs would include but not be limited to TRA Facility Operations, Voluntary Consent Order and Environmental Affairs. TRA is an active facility where the potential exists for coming into contact with these materials and/or soils during any construction and/or field activities in this immediate area.

The basis for recommendation must include: (1) source description; (2) exposure pathways; (3) potential contaminants of concern; and (4) descriptions of interfaces with other programs, as applicable (e.g., D&D, Facility Operations, etc.)

6. Contractor WAG Manager Certification: I have examined the proposed site and the information submitted in this document and believe the information to be true, accurate, and complete. My recommendation is indicated in Section 4 above.

Name: Stephen G. Wilkinson Signature: S.G. Wilk Date: 5/14/02

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Part C – To Be Completed By INEEL FFA/CO WAG Managers

7. WAG Operable Unit:

DOE WAG Manager's Concurrence: ☒ Concur with recommendation. ☐ Do not concur with the recommendation.

Signature: Kathleen E. Nelson

Date: 24 FEB 03

EPA WAG Manager's Concurrence: ☒ Concur with recommendation. ☐ Do not concur with the recommendation.

Signature: Rod Ruck

Date: 9/26/02

State of Idaho WAG Manager's Concurrence: ☒ Concur with recommendation. ☐ Do not concur with the recommendation.

Signature: Clyde A. Cody

Date: 10/15/02

Explanation follows:

Part D – To Be Completed By The INEEL FFA/CO Responsible Program Managers (RPM's)

8. FFA/CO RPM's Concurrence:

For DOE-ID

Name: Kathleen Hain Signature: Kathleen S Hain Date: 2/26/03

☒ Concur
☐ Do not concur. Explanation follows:

For EPA Region X

Name: Wayne Pierre Signature: Wayne Pierre Date: 9/26/02

☒ Concur
☐ Do not concur. Explanation follows:

For State of Idaho

Name: Dean Nygard Signature: Dean Nygard Date: 10/15/02

☒ Concur
☐ Do not concur. Explanation follows: